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## A Study of Teachers' Self-Efficacy Beliefs, Motivation to Teach, and Curriculum Fidelity: A Path Analysis Model

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## **A Study of Teachers' Self-Efficacy Beliefs, Motivation to Teach, and Curriculum Fidelity: A Path Analysis Model**

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### **Abstract**

This study aims to test a path analysis model that examines teachers' self-efficacy beliefs, motivation to teach, and curriculum fidelity. A correlational survey model was used while designing the study. The study sample consisted of 414 teachers working in a province of Turkey during the spring semester of the 2019-2020 academic year. The Teacher Self-Efficacy Beliefs Scale, the Teachers' Motivation to Teach Scale, and the Curriculum Fidelity Scale were used as data collection tools. Prior to data analysis, the data set was tested for both univariate and multivariate normality; descriptive statistics, Pearson correlation, and path analysis were also used to test the data. The results of the study show that the teachers have strong self-efficacy beliefs. While they have high intrinsic motivation, their extrinsic motivation is moderate. Based on the results of the path analysis, teachers' self-efficacy beliefs were found to, directly and indirectly, predict both their motivation to teach and their curriculum fidelity. In addition, teachers' levels of intrinsic motivation were found to predict curriculum fidelity directly, while their levels of extrinsic motivation were found to affect curriculum fidelity indirectly.

**Keywords:** Self-Efficacy Beliefs, Motivation to Teach, Curriculum Fidelity.

### **Introduction**

Self-efficacy refers to an individual's belief in their capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1986), while a teacher's self-efficacy refers to the extent to which the teacher believes he or she has the capacity to influence the performance of students under their supervision (Brouwers and Tomic, 2003; Tschannen-Moran and Woolfolk-Hoy, 2001). In other words, it refers to the teacher's belief in his or her ability to successfully and efficiently build and sustain an effective teaching and learning environment (Dellinger et al., 2008; Tschannen-Moran and Woolfolk-Hoy, 2001). In this context, it can be argued that teachers' self-efficacy beliefs can influence the teaching and learning process (Gibson and Dembo, 1984; Woolfolk and Hoy, 1990). Accordingly, teachers' self-efficacy beliefs have a positive influence on the academic achievement of the students they supervise (Khurram and Sajida, 2017). Moreover, teachers with strong self-efficacy beliefs tend to create a learning environment that enables students to learn more effectively (Fritz et al., 1995; Tschannen-Moran, Hoy and Hoy, 1998); these teachers are also able to transfer new teaching concepts into a teaching and learning environment in a more motivating way (Czerniak and Lumpe, 1996). Thus, it can be stated that a person's self-efficacy beliefs can noticeably influence their motivational processes (Bandura, 1997; Bektaş and Karagöz, 2017; Pajares, 1997; Stajkovic and Luthans, 2003; Yazıcı, 2009).

On the other hand, motivation is the willingness to exert high levels of effort toward a particular goal (Robbins and Judge, 2012). In addition, it refers to a driving force behind human actions (Hersey and Blanchard, 2001). Motivation can be divided into two categories: intrinsic motivation and extrinsic motivation. Extrinsic motivation refers to human behaviors that arise from and are the byproducts of external sources and factors (Deci et al., 1991). Therefore, individuals' extrinsic motivation is a set of behaviors driven by responses that they receive from their social circles. On the other hand, intrinsic motivation is motivation that arises from an individual's inner self and leads them to engage in a specific behavior (Gagne and Deci, 2005; Ryan and Deci, 2000). When regarded as a conceptual whole, both intrinsic and extrinsic motivation play an important role in determining the behavior of different individuals. Therefore, it is safe to say that education, which can be considered a process of behavioral change, is closely connected to motivation; the latter is regarded as a cornerstone of the teaching and learning

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process (Akbaba, 2006; Viau, 2015). Like this, as the designated leaders of the teaching and learning process, teachers' motivation levels may affect the quality of education (Butler, 2007; Owens, 1998) because they affect the way teachers integrate technology into their classrooms as well as pedagogical and subject knowledge (Karakuyu and Karakuyu, 2016). In addition, teachers' motivation levels influence their students' motivation levels (Engin, 2020) and on curriculum fidelity as well (Bond et al., 2000).

The concept of curriculum fidelity refers to how closely programs apply relevant curriculum content as it is originally designed (Dusenbury et al., 2003; Pence, Justice, and Wiggins, 2008). In other words, it indicates the degree to which the designed curriculum conforms with the one that is delivered (Furtak et al., 2008). Curricula are specifically-designed road maps that guide teachers through the teaching and learning process and determine the proper way and time to perform activities (Ertürk, 2013; Oliva, 1997). The delivery of originally-designed curriculum plays a key role in enabling students to learn efficiently (Fullan and Pomfret, 1977). There is a correlation between students' academic achievement and the delivery of originally-designed curricula (O'Donnell, 2008). Teachers are the implementers of planned activities during the teaching and learning process (Demirel, 2007; Özden, 2014), they have significant responsibilities and duties when delivering curricula. Therefore, teachers' curriculum fidelity is an essential variable in the process of creating an efficient teaching and learning environment.

An examination of the relevant theoretical framework reveals that teachers' self-efficacy beliefs, motivation to teach, and curriculum fidelity play a crucial role and have a direct impact on the teaching and learning process. Moreover, there are a large number of studies in the relevant academic literature (Bal-Taştan et al., 2018; Barni, Danioni, and Benevene, 2019; Canrinus et al., 2012; Harun, Putrawan and Miarisyah, 2019; Johnakin-Putnam, 2020; Kao, Wu, and Tsai, 2011; Karakuyu and Karakuyu, 2016; Laueremann et al, 2017; Patrick, 2016; Sehgal, Nambudiri, and Mishra, 2017) that examine the relationship between teachers' self-efficacy beliefs and their motivation levels. In addition, these prior studies were found to have limitations in identifying and describing predictive relationships between teachers' self-efficacy beliefs and their intrinsic and extrinsic motivation, indicating that further research examining predictive relationships between teachers' self-efficacy beliefs and their motivation is needed. Investigating the predictive effect of teachers' self-efficacy beliefs on their teaching motivation can supply researchers with data and information that provide insight into teachers' motivational processes. In studies carried out by Bay et al. (2017), they point out that teachers' motivation to teach may affect their curriculum fidelity, while Bümen, Çakar and Yıldız (2014) state that there may be a relationship between teachers' curriculum fidelity and their self-efficacy beliefs. A study conducted by Kabaş and Yıldız (2020) shows that teachers' self-efficacy beliefs are important in predicting their curriculum fidelity.

Curriculum development is a dynamic process that is in a constant state of flux. It is an undeniable fact that this dynamic process is important to achieve the desired efficiency of the curriculum (Demirel, 2007). One of the important factors in achieving the goals of the curriculum is the curriculum fidelity (Dane and Schneider, 1998). In other words, curriculum fidelity has a decisive effect in revealing the quality of a curriculum. Studies in the literature also support this effect (Baş and Şentürk, 2020; Gelmez-Burakgazi, 2020; Iskandar, 2020; Russel, 2020). The education stakeholders responsible for implementing the curriculum are the teachers (Hord and Huling-Austin, 1986). In this respect, examining teachers' curriculum fidelity can give clues about the quality of the curriculum. A study of the relevant literature and the theoretical framework shows several indications that the variables affecting teachers' curriculum fidelity include their perception of competence in teaching profession and their motivation to teach. Although a holistic assessment of the results of their study reveals that teachers' self-efficacy beliefs and their levels of motivation can affect their curriculum fidelity, the amount of information presented in the study results that discuss this effect was limited. Therefore, it is believed that further study is needed to extensively scrutinize predictive relationships among teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity. Also, no studies that examine all three of these variables together have been encountered in the current body of relevant literature; for this reason, we believe that this study will provide researchers with a different perspective on this issue and fill a knowledge gap in the field. Moreover, the results of the interpretation of the predictive relationships among the variables can serve as a guide for teachers (as designated implementers), school administrators, and agencies responsible for in-service teacher training. Thus, the main purpose of this study is to test the relationships among teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity using a path analysis model. The hypotheses to be tested using the path analysis model can be found below.

Teachers' self-efficacy beliefs play a key role in creating a positive classroom environment and ensuring that students have productive learning experiences (Jungert and Rosander, 2010). On the other hand, motivation can be seen as a separate factor that enables the teaching and learning process to function properly (Viau, 2015). Studies in the relevant body of literature indicate that these two variables, both of which are key components of

the teaching and learning process, are interrelated (Johnakin-Putnam, 2020; Kao et al., 2011; Lauermaun et al., 2017; Patrick, 2016; Schunk, 1991). Studies conducted by Harun et al. (2019) suggest that teachers' self-efficacy beliefs are a statistically significant predictor of their motivation levels. Below, there are hypotheses constructed within this purview:

**H1:** Teachers' self-efficacy beliefs (SEB) positively and significantly affect their intrinsic motivation to teach (IM).

**H2:** Teachers' self-efficacy beliefs (SEB) positively and significantly affect their extrinsic motivation to teach (EM).

Curriculum fidelity can be seen as another concept that is related to teachers' self-efficacy beliefs (Bümen et al., 2014). A study conducted by Kabaş and Yıldız (2020) revealed that classroom teachers' self-efficacy beliefs regarding their first reading-writing classes predicted their fidelity to the relevant curriculum. Furthermore, various studies (Rohrbach, Graham, and Hansen, 1993; Thierry, Vincent, and Norris, 2020) provide ample evidence of the correlation between self-efficacy beliefs and curriculum fidelity. Keeping this correlation in mind, a hypothesis can be constructed as follows:

**H3:** Teachers' self-efficacy beliefs (SEB) positively and significantly affect their curriculum fidelity (CF).

Motivation to teach can be divided into two categories: intrinsic motivation and extrinsic motivation (Güzel-Candan and Evin-Gencel, 2015). Additionally, the sources of motivation for both intrinsic and extrinsic motivation are interrelated (Gök and Atalay-Kabasakal, 2019). Furthermore, Baltaş (2002) stated that sources of extrinsic motivation may affect sources of intrinsic motivation while engaging in a particular activity. Likewise, Aslan and Doğan (2020) also noted that extrinsic motivation may influence intrinsic motivation. Teachers' levels of motivation may affect their curriculum fidelity (Bay et al., 2017), and hypotheses regarding this idea can be constructed as follows:

**H4:** Teachers' extrinsic motivation (EM) positively and significantly affects their intrinsic motivation (IM).

**H5:** Teachers' extrinsic motivation (EM) positively and significantly affects their curriculum fidelity (CF).

**H6:** Teachers' intrinsic motivation (IM) positively and significantly affects their curriculum fidelity (CF).

## Method

### Model

The correlational survey model, a type of survey model, is used to determine both the degree and direction of the relationship between two or more variables (Karasar, 2006). Therefore, the correlational survey model was chosen as the model for this study, as path analysis was going to be used to assess relationships among teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity.

### Population and Sample

The study population consisted of 436 teachers working in one province of Turkey during the spring semester of the 2019 - 2020 academic year. Due to the Covid 19 epidemic, the criterion of easy accessibility was used to select the sample and, accordingly, teachers working in a specific city were identified as the target population. In this context, convenience sampling was preferred in the selection of the sample. The sample used for this study comprised 414 teachers. The data of the sample can be found in Table 1.

As indicated in Table 1, 237 (57.2%) of the teachers who participated in the study were female, and 177 (42.8%) were male. 170 (41.1%) of the teachers were primary education teachers, while 244 (58.9%) were subject teachers. 60 (14.5%) of teachers who participated in the study had between one and five years of work experience, 120 (29%) had between six and ten years, 104 (25.1%) had between eleven and fifteen years, 60 (14.5%) had between sixteen and twenty years, and 70 (16.9%) had twenty-one years or more. 165 (39.9%) of the teachers worked in an elementary school, 157 (37.9%) worked in a middle school, and 92 (22.2%) worked in a high school.

**Table 1: Demographic Profile of the Sample**

Categories	Groups	(f)	(%)
Sex	Female	237	57.2
	Male	177	42.8
Teacher Subject Areas	Primary Education	170	41.1
	Subject Teacher	244	58.9
Years of Experience	1-5 years	60	14.5
	6-10 years	120	29
	11-15 years	104	25.1
	16-20 years	60	14.5
	21+ years	70	16.9
Educational Stage	Elementary School	165	39.9
	Middle School	157	37.9
	High School	92	22.2

### Data Collection Tools

*Teacher Self-Efficacy Beliefs Scale:* The Teachers Self-Efficacy Beliefs Scale (TSEBS) was developed by Schmitz and Schwarzer (2000) and adapted by Yılmaz et al. (2004) for use in a Turkish cultural context. The scale, which consisted of ten items, was first translated into Turkish and then used to measure the beliefs of 87 teachers from different subject areas. Principal component analysis (PCA) was used to ensure that the scale has construct validity. After subjecting the data set to Varimax rotation, a scale with a single dimension and eight items was created. The Cronbach's alpha value of the scale was calculated to be 0.79. The scale is in 4-point Likert type. As a result of the reliability analysis applied within the scope of the present study, the Cronbach alpha value was calculated as .83. There is no confirmatory factor analysis during the scale development stages. In this respect, confirmatory factor analysis was applied within the scope of the present study. One modification was carried out during the analysis phase. As a result of the analysis, it can be said that the goodness of fit values (CMIN/DF= 3.202, RMSEA= 0.073, RMR= 0.036, SRMR= 0.055, CFI: 0.941, GFI= 0.95) are acceptable values (Hu and Bentler, 1999; Sümer, 2000; Tabachnick and Fidell, 2001).

*Teachers' Motivation to Teach Scale:* The Teachers' Motivation to Teach Scale (TMTS) was developed by Kauffman, Yılmaz-Soylu and Duke (2011) and adapted by Güzel-Candan and Evin-Gencil (2015) for use in a Turkish cultural context. The scale, which consists of two dimensions and twelve items, was translated into Turkish and then used to analyze 342 prospective teachers' motivation levels in a university's teacher education program. Confirmatory factor analysis was used to ensure that the scale has construct validity. The goodness of fit values determined as a result of confirmatory factor analysis revealed that the model showed a good fit (CMIN/DF =3.10, CFI= 0.94, NFI= 0.92, GFI= 0.94, AGFI= 0.89, RMSEA=0.08). After conducting various analyses, it was found that the scale had two dimensions and twelve items just as the original scale; the dimensions were referred to as *intrinsic motivation* (IM) and *extrinsic motivation* (EM). The Cronbach's alpha value of the scale was determined to be 0.79. The scale is 6-point Likert type. As a result of the reliability analysis applied within the scope of the present study, Cronbach's alpha values were calculated as .83 for Intrinsic Motivation (IM) dimension, .68 for Extrinsic Motivation (DM) and .85 for the overall scale.

*Curriculum Fidelity Scale:* The Curriculum Fidelity Scale (CFS) was developed by Yaşaroğlu and Manav (2015). After conducting a comprehensive literature review, a draft scale with thirty-four items used to assess the responses of 167 teachers. After the exploratory factor analysis was completed, a scale with a single dimension and twenty items was created. Sixteen of the items in the scale were coded as positive and four as negative. The Cronbach's alpha of the scale was calculated to be 0.896. The scale is a 5-point Likert scale. As a result of the reliability analysis conducted in the present study, the Cronbach's alpha value was calculated to be .90.

### Data Collection and Analysis

During June 2020, data was collected digitally through electronic mediums due to the COVID-19 pandemic. The data set was checked for extreme values, and two pieces of data were subsequently removed. The data set was then tested for both univariate and multivariate normality. Measures of kurtosis and skewness for the data were calculated to be between -1 and +1. George and Mallery (2010) found that measures of kurtosis and skewness in a data set between -1 and +1 were sufficient to conclude that the data were normally distributed. Therefore, the data was deemed to be normally distributed. Also, data was analyzed using AMOS statistical software to test multivariate normality. Data from this analysis can be found in Table 2.

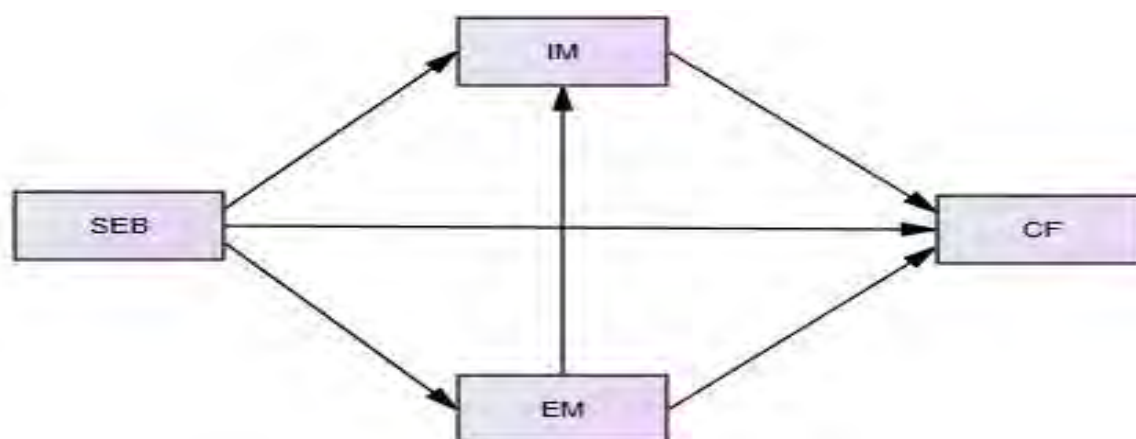
**Table 2.** Assesment of multivariate normality

	skewness	c.r.	kurtosis	c.r.
Self-Efficacy Beliefs (SEB)	-.366	-3.042	.080	.332
Intrinsic Motivation (IM)	.256	2.124	-.261	-1.084
Extrinsic Motivation (EM).	-.628	-5.218	-.145	-.604
Curriculum Fidelity (CF)	-.561	-4.664	-.207	-.858
Multivariate			.433	.636

Table 2 contains data from the multivariate normality analysis. According to Gürbüz (2019), the kurtosis and skewness values of the data should be between -3 and +3. When the data in Table 2 are examined, it is seen that these values are between -3 and +3. Kline (2011) noted that the measure of kurtosis critical value derived from multivariate distribution should be no more than 10; the measure of kurtosis critical value for our data set was 0.636. Therefore, the data was deemed to have a multivariate normal distribution. This conclusion was reached using the maximum likelihood estimation routine in AMOS.

As scales employed in this study have different levels of agreement in the Likert scale, the intervals between values assigned for each Likert item vary. For instance, the Self-Efficacy Beliefs Scale was designed as a four-point Likert scale, and intervals between values were designated as follows: values between 1.00 and 1.59 were considered *very low*, 1.60 and 2.19 *low*, 2.20 and 2.79 *moderate*, 2.80 and 3.29 *high*, 3.30 and 4.00 *very high*. The Teachers' Motivation to Teach Scale was designed as a six-point Likert scale: values between 1.00 and 1.99 were considered *very low*, 2.00 and 2.99 *low*, 3.00 and 3.99 *moderate*, 4.00 and 4.99 *high*, 5.00 and 6.00 *very high*. The Curriculum Fidelity Scale was created as a five-point Likert scale and intervals between values were determined as follows: values between 1.00 and 1.79 were considered *very low*, 1.80 and 2.59 *low*, 2.60 and 3.39 *moderate*, 3.40 and 4.19 *high*, 4.20 and 5.00 *very high*.

The Pearson correlation coefficient was used to measure reciprocal relationships between variables using the SPSS 21 software package. If the coefficient value is less than 0.30, the degree of correlation is deemed to be *low*; if it lies between 0.30 and 0.70, it is regarded *moderate*; if it is higher than 0.70, it is considered *high* (Büyüköztürk, 2007). Also, the path analysis model was scrutinized based on *observed* variables using AMOS 21 software; in addition, various fit indices of the model ( $\chi^2/df$ , RMSEA, SRMR, RMR, NFI, NNFI, GFI, and CFI) were taken into account. Moreover, standardized coefficient values less than 0.10 were identified as having a *low effect*, values between 0.10 and 0.50 as having a *moderate effect*, and values higher than 0.50 as having a *strong effect* (Shur, 2008). The theoretical model that was tested in this study can be found in Figure 1.

**Figure 1.** The theoretical model

## Results

Descriptive statistics data sets that were related to variables in the study were evaluated in this section. Then, results from Pearson correlation analysis, which measures reciprocal relationships between variables, were introduced. Finally, path analysis results, which show predictive relationships between variables, were presented.

### Descriptive statistics data related to variables

Table 3 contains descriptive statistics data for the three variables of this study: teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity.

**Table 3.** Descriptive information about variables

Dimensions	Minimum	Maximum	Mean (M)	Standard Deviation (SD)
Self-Efficacy Beliefs (SEB)	1.50	4.00	3.16	0.48
Intrinsic Motivation (IM)	1.00	6.00	4.07	1.12
Extrinsic Motivation (EM).	1.00	6.00	3.24	1.03
Curriculum Fidelity (CF)	2.90	5.00	4.34	0.48

As shown in Table 3, descriptive statistics data shows that teachers' self-efficacy beliefs (M=3.16, SD=0.48) and their levels of intrinsic motivation (M=4.07, SD=1.12) were found to be high. In contrast, their levels of extrinsic motivation (M=3.24, SD=1.03) and curriculum fidelity (M=4.34, SD=0.48) were found to be moderate and very high, respectively.

### Relationships between variables

Table 4 contains the Pearson correlation analysis results, which reveals reciprocal relationships between teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity.

**Table 4.** Pearson correlation analysis for variables

	SEB	IM	EM	CF
Self-Efficacy Beliefs (SEB)	1			
Intrinsic Motivation (IM)	.39**	1		
Extrinsic Motivation (EM).	.22**	.62**	1	
Curriculum Fidelity (CF)	.55**	.37**	.18**	1

\*\*p<.01

Based on the results shown in Table 4, there is a moderate, positive relationship between teachers' self-efficacy beliefs and both their intrinsic motivation (r=0.39) and curriculum fidelity (r=0.55), while the relationship between teachers' self-efficacy beliefs and their extrinsic motivation (r=0.22) is low and positive. Also, there is a moderate, positive relationship between teachers' curriculum fidelity and their intrinsic motivation (r=0.37), while the relationship between teachers' curriculum fidelity and their extrinsic motivation (r=0.18) is low and positive. There is also a moderate, positive relationship between teachers' intrinsic motivation and extrinsic motivation (r=0.62).

### Findings from the path analysis

Table 5 contains the findings from the path analysis, which reveals predictive relationships between teachers' self-efficacy, their motivation to teach, and their curriculum fidelity.

**Table 5.** Path analysis results of the model

			Path	t	P	Result	
H1	SEB	→	IM	.26	7.016	**	Confirmed
H2	SEB	→	EM	.22	4.539	**	Confirmed
H3	SEB	→	CF	.47	10.829	**	Confirmed
H4	EM	→	IM	.57	15.170	**	Confirmed
H5	IM	→	CF	.24	4.454	**	Confirmed
H6	EM	→	CF	-.08	-1.510	.131*	Disproved

\*\*p<.01, \*p>.05

Table 5 has the results that show correlation coefficients between variables. Teachers' self-efficacy beliefs were found to have a moderate effect on teachers' intrinsic motivation ( $\beta=0.26$ ), extrinsic motivation ( $\beta=0.22$ ), and

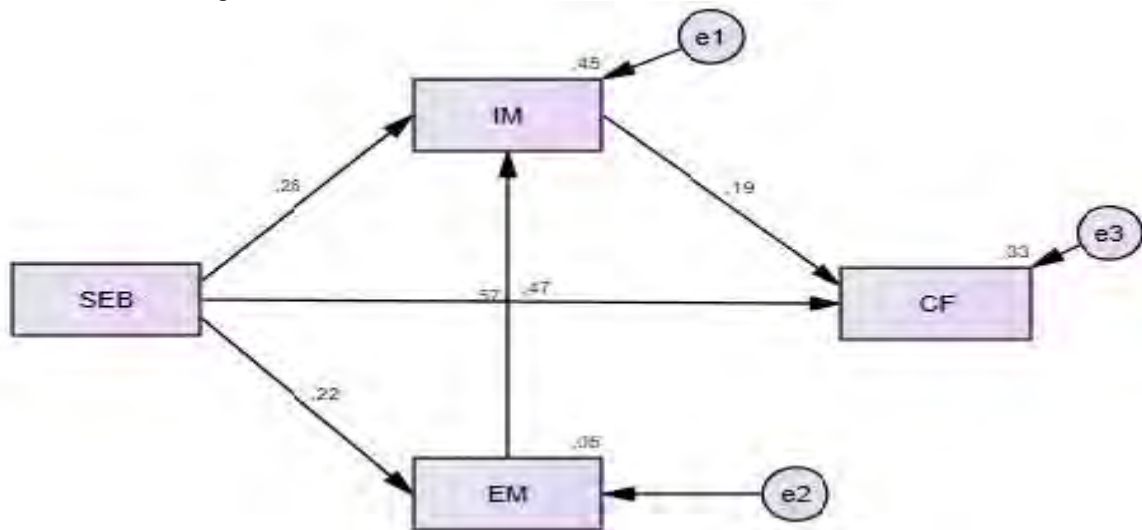
curriculum fidelity ( $\beta=0.47$ ). Teachers' intrinsic motivation was also found to have a moderate effect on curriculum fidelity ( $\beta=0.24$ ). Extrinsic motivation had a strong effect on intrinsic motivation ( $\beta=0.57$ ), but it didn't significantly affect curriculum fidelity ( $\beta=-0.08$ ). Consequently, the hypotheses H1, H2, H3, H4, and H5 were confirmed, while H6 was disproved. In the next step, the path from EM to CF was removed from the model and the analysis was performed again. The results of the path analysis of the second model can be found in Table 6.

**Table 6.** Path analysis results of the second model

				Path	t	P	Result
H1	SEB	→	IM	.26	7.016	**	Confirmed
H2	SEB	→	EM	.22	4.539	**	Confirmed
H3	SEB	→	CF	.47	10.850	**	Confirmed
H4	EM	→	IM	.57	15.170	**	Confirmed
H5	IM	→	CF	.19	4.419	**	Confirmed

\*\*p<.01

Table 6 has the results that path analysis results of the second model. It was determined that the path coefficients of H1, H2, H3 and H4 are the same as the coefficients obtained from the first path analysis model. However, it is understood that the path coefficient of H5 changes and takes the value ( $\beta=0.19$ ). The fit indices (CMIN/df: 2.273, RMSEA: 0.056, SRMR: 0.015, RMR: 0.007, NFI: 0.99, NNFI: 0.98, CFI: 0.99, and GFI: 0.99) of the model suggested a perfect fit (Hu and Bentler, 1999; Kline, 2011; Sümer, 2000; Tabachnick and Fidell, 2001; Thompson, 2004). In addition, the percentages of the variance of the dependent variable explained by the independent variables are 46% for intrinsic motivation (IM), 5% for extrinsic motivation (EM), and 35% for curriculum fidelity (CF). Direct relationships between variables and the accompanying standardized path coefficients of the second model can be found in Figure 2.



**Figure 2.** The concomitant standardized path coefficients of the second model

Both direct and indirect effects between variables were examined; the bootstrap method was used and a 95% confidence interval was obtained. Table 7 contains data related to this path analysis.

**Table 7.** Indirect effects on variables

	SEB	EM	IM
EM	-	-	-
IM	.12	-	-
CF	.07	.11	-

Table 6 contains data that reveals indirect, statistically significant effects regarding variables. In light of this data, the indirect effect of teachers' self-efficacy beliefs on their intrinsic motivation was moderate ( $\beta=0.12$ ). In contrast, its indirect effect on curriculum fidelity was found to be low ( $\beta=0.07$ ). Also, teachers' extrinsic



motivation had a moderate, indirect effect on curriculum fidelity ( $\beta=0.11$ ). All of the standardized regression coefficients were found to be statistically significant.

## Discussion, Conclusions, and Recommendations

The primary aim of this study was to examine the predictive relationships among teachers' self-efficacy beliefs, their motivation to teach, and their curriculum fidelity using a path analysis model. Also, descriptive statistics data were analyzed to summarize the characteristics of the data set and the reciprocal relationships between variables. In this section, results from both the descriptive statistics data sets and correlation analysis will be discussed before discussion of path analysis results.

Firstly, based on data gathered from descriptive statistics, teachers were found to have strong self-efficacy beliefs; it is evident that teachers believe they are competent at managing an effective and productive teaching and learning process. Results from previous studies (Aydın, 2016; Bozbayındır and Alev, 2018; Kaçar and Beycioğlu, 2017; Kahraman and Çelik, 2019; Pouluo, Reddy and Dudek, 2018) in the relevant body of literature were found to dovetail with the results of this study. Secondly, findings from descriptive statistics revealed that teachers' intrinsic motivation is at a high level, while their levels of extrinsic motivation are moderate. Thus, it can be said that teachers earnestly perform school-related activities because they enjoy doing so, not because of any outside incentives and/or recognition. Although findings from previous studies (Argon and Ertürk, 2013; İhtiyaroğlu, 2017) in the relevant body of literature align with the results of this study, Argon and Cicioğlu (2017) found in their study that teachers' levels of intrinsic and extrinsic motivation were low. The sample of their study might have led them to this conclusion, as the sample consisted of teachers working in vocational schools. Both the working conditions and the student profile in vocational schools may have caused teachers in those environments to have lower motivation levels. In our study, the results from the descriptive statistics datasets showed that teachers' curriculum fidelity was very high, indicating that teachers tend to transfer the curriculum into the teaching and learning process as it was originally designed. A thorough review of the relevant literature revealed that previous studies (Aslan and Erden, 2020; Burul, 2018; Tekbıyık and Akdeniz, 2008) reached similar conclusions.

Findings from correlation analysis revealed that there were positive, statistically significant correlations between the variables. Firstly, teachers' self-efficacy beliefs and their intrinsic motivation to teach were moderately correlated, while there was a low correlation between teachers' self-efficacy beliefs and their extrinsic motivation to teach. Thus, it can be said that teachers' self-efficacy beliefs fluctuate in direct proportion to their levels of motivation during the teaching and learning process. An examination of the relevant literature showed previous studies (Engin, 2020; Johnakin-Putnam, 2020; Karakuyu and Karakuyu, 2016; Lauer mann et al., 2017; Patrick, 2016) supported the results of this study. Secondly, teachers' self-efficacy beliefs and their curriculum fidelity were moderately correlated; it is quite clear that teachers' self-efficacy beliefs fluctuate in direct proportion to their perceptions regarding their ability to implement curricula during the teaching and learning process properly. A study conducted by Kabaş and Yıldız (2020) obtained similar results. Thirdly, a moderate correlation was found between teachers' curriculum fidelity and their intrinsic motivation and, finally, there was a low correlation between their curriculum fidelity and extrinsic motivation. In light of these findings, it can be argued that teachers' propensity to feel motivated during the teaching and learning process is directly related to their ability to deliver and implement curricula as they were originally designed. In their study, Bay et al. (2017) indicate a relationship between teachers' motivation and their curriculum fidelity.

The first two hypotheses of the study examined the predictive relationship between teachers' self-efficacy beliefs and their extrinsic motivation; these variables were found to have a positive predictive relationship. This way, it was confirmed that teachers' self-efficacy beliefs significantly affect their motivation to teach: teachers' self-efficacy beliefs moderately predict both their intrinsic and extrinsic motivation to teach. In other words, teachers' self-efficacy beliefs play an important role in understanding their motivation to teach; the degree to which teachers feel competent shapes their motivational processes. The relevant literature shows that results from previous studies (Harun et al., 2019; Kao et al., 2011; Patrick, 2016) align with these results. In particular, one study conducted by Harun et al. (2019) provides strong evidence that confirms the results at hand. Teachers' self-efficacy beliefs were found to predict their motivation in said study significantly.

The third hypothesis of the study examined the predictive effect of teachers' self-efficacy beliefs on their curriculum fidelity. Results showed that teachers' self-efficacy beliefs moderately predicted their curriculum fidelity. In other words, teachers' self-efficacy beliefs play a major role in understanding their curriculum fidelity; the degree to which teachers feel competent determines how closely teachers implement original curriculum content. According to Bandura (1986), individuals' self-efficacy beliefs that they can perform an activity

determine the level of realization of the activity in question. Accordingly, individuals with high self-efficacy beliefs for performing an activity perform that activity with higher efficiency. The teacher's task is to achieve the objectives of the curriculum as far as possible in the process of learning and teaching. In this context, it can be said that a teacher who confidently performs his professional duty can effectively achieve the objectives of the curriculum. Achieving the objectives of a curriculum, that is, carrying out the curriculum in accordance with the original, is called curriculum fidelity. In this regard, it can be said that teachers' self-efficacy beliefs toward their profession are an important factor in their curriculum fidelity. In a study conducted by Kabaş and Yıldız (2020), it was also found that teachers' self-efficacy beliefs have a predictive effect on their curriculum fidelity. Also, Bümen et al. (2014) stated that teachers' perceptions of professional self-efficacy significantly contributed to their program/curriculum content being effectively delivered and implemented as designed. In a study carried out by Babaoğlu and Korkut (2010), teachers' self-efficacy beliefs were found to be related to their management of the teaching and learning process. Given that effectively managing the teaching and learning process plays a major role in implementing and delivering the curriculum content as it is designed, the effect of self-efficacy beliefs on curriculum fidelity can be easily inferred. Results from various previous studies (Rohrbach et al., 1993; Thierry et al., 2020) support this view.

The fourth hypothesis of the study examined the predictive effect of teachers' extrinsic motivation on their intrinsic motivation and found that teachers' extrinsic motivation moderately predicted their intrinsic motivation. Therefore, teachers' extrinsic motivation plays an important role in understanding their intrinsic motivation. Börü (2018) considered factors such as school administration and students as some of the extrinsic sources that sustain teachers' motivation. Therefore, teachers' interaction with external factors such as school administration, parents, and students is a basis for teachers' professional motivation. In a school environment where school administrators encourage teachers' progress and achievement, teachers will undoubtedly be able to manage their intrinsic motivational processes at a higher level. Similar conclusions were reached by previous studies (Ada et al., 2013; Demir, 2018; Doğan and Koçak, 2014; Kocabaş and Karaköse, 2005; Özgan and Aslan, 2008; Ünal, 2000) in the related literature regarding the effect of school administrators on teachers' motivation. Aslan and Doğan (2020) in their theoretical analysis of the topic pointed out the crucial effect that extrinsic motivation has on intrinsic motivation.

The study's fifth and sixth hypotheses examined the predictive effects of both intrinsic and extrinsic motivation on curriculum fidelity. Teachers' intrinsic motivation was found to moderately predict their curriculum fidelity, while teachers' extrinsic motivation didn't have any direct or statistically significant effect on their curriculum fidelity. However, teachers' extrinsic motivation *was* found to affect their curriculum fidelity moderately and indirectly through its connection to their level of intrinsic motivation. Thus, the extent to which teachers feel professionally motivated during the teaching and learning process positively affects their efforts to implement and deliver curricula as they were originally conceived. In other words, teachers' motivational processes during teaching play a crucial role in how closely they adhere to the original design of curricula. Bay et al. (2017) claimed that teachers' motivation plays an important role in curriculum fidelity. Bond et al. (2000) also pointed out that there is a relationship between motivation and curriculum fidelity.

Ultimately, teachers' self-efficacy beliefs were found to directly *and* indirectly affect their motivation to teach and their curriculum fidelity. In addition, teachers' motivation to teach was found to affect their curriculum fidelity. These findings indicate that the extent to which teachers feel professionally competent and motivated during the teaching and learning process matters when it is time to implement programs and content as they were originally intended in the curricula. In this context, it is expected that a teacher who has a high professional self-efficacy belief and high teaching motivation will feel more competent in the learning-teaching process. As a result of this, it is possible to say that the teacher can achieve more accurate results in achieving the goals of the curriculum.

On the contrary, it can be said that a teacher who considers themselves to be professionally inadequate and has a low motivation to teach may experience some limitations in achieving the goals of the curriculum. Therefore, to increase teachers' curriculum fidelity to a high level, it is necessary to maintain a high level of professional self-efficacy belief and motivation to teach. Undoubtedly, these findings can serve as a guide for experts in charge of creating in-service training programs for teachers. A variety of in-service training programs can be created (along with several initiatives that improve their understanding of workers' rights) to strengthen teachers' self-efficacy beliefs and increase their motivation. In addition, school administrators also play an important role in enhancing teachers' self-efficacy beliefs and increasing their motivation so that the school can constructively monitor teachers' progress during the teaching and learning process and reward them with various certificates based on their performance from time to time. Another external factor that increases teachers' motivation is parent-teacher communication. Once again, the school administration plays an important role by establishing an open

environment for communication within parent-teacher associations and creating an action plan that facilitates and coordinates the relationships between parents and teachers. When schools do this, teachers are externally motivated, which also increases their intrinsic motivation. A teacher with increased intrinsic motivation will make every effort to implement and deliver the curriculum content as it was originally conceived. However, a major limitation of this study was the fact that it was conducted only with a group of teachers working in a single province of a country. Thus, future studies could focus on various groups of teachers working in many different provinces, and it could also use different sampling methods. Also, a mixed method research design could be utilized to enable researchers to more deeply examine the matter at hand.

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